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PATENT
Customer No. 31743
Attorney Docket No. 12336

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
Gary L. Schroeder, et al.	)	Group Art Unit: 1762
Serial No.: 10/051,814	)	Examiner: Elena Tsoy
Filed: January 14, 2002	)	
For: Moist Wipe and Method of Making Same	)	

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

TRANSMITTAL OF SUBSTITUTE BRIEF ON APPEAL
(PATENT APPLICATION - 37 CFR § 41.37)

Transmitted herewith is the Substitute Brief on Appeal in the above-identified application, responsive to the Notification of Non-Compliant Appeal Brief mailed February 7, 2006.

If there are any fees due in connection with the filing of this Substitute Brief on Appeal, please charge the fees to our Deposit Account No. 10-0235. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

Date: February 15, 2006

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Enclosures: Substitute Brief On Appeal (13 pages)
Postcard Receipt

CERTIFICATION UNDER 37 CFR 1.8(a)

I hereby certify that this Transmittal of Substitute Brief on Appeal and the documents referred to as attached therein are being deposited with the United States Postal Service as first class mail, postage prepaid, on this date February 15, 2006, in an envelope addressed to: Mail Stop Appeal Brief – Patents, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Mary Eckert

PATENT
Customer No. 31743
Attorney Docket No. 12336

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SUBSTITUTE BRIEF ON APPEAL UNDER 37 CFR §41.37(c)

Sir:

Applicant hereby submits its Substitute Brief on Appeal in the above-noted United States Patent Application. A Notice of Appeal was submitted on February 7, 2005, appealing the rejection of Claims 24-33. A Brief was filed on May 6, 2005. This Substitute Brief is filed responsive to a Notification of Non-Compliant Appeal Brief mailed February 7, 2006, which requested the addition of missing sections IX and X, Evidence Appendix and Related Proceedings Appendix, respectively. Those changes have been made in this Substitute Brief. This response is believed timely; however, if any extensions are necessary, please consider this paper a Petition therefor and charge Deposit Account No. 10-0235 for any fees due in connection with this Substitute Brief.

I. REAL PARTY IN INTEREST

Fort James Corporation, 133 Peachtree Street, N.E., Atlanta, Georgia, 30303, a wholly-owned subsidiary of Georgia-Pacific Corporation, is the real party in interest in this patent application. The Assignment to Fort James Corporation was recorded at Reel/Frame 012534/0723 on March 29, 2002.

II. RELATED APPEALS AND INTERFERENCE

There are no related appeals, interferences or judicial proceedings related to, or which will affect, or which will be affected by, or which will have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 1-39 are pending in this application. Claims 1-23 and 34-39 are withdrawn as directed to a non-elected invention. Claims 24-33 are on appeal. A complete listing of all claims on appeal appears in section VIII, Claims Appendix. No claims are allowed.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the Final Rejection of November 8, 2004.

V. SUMMARY OF CLAIMED SUBJECT MATTER

For purposes of this appeal, pending claims are divided into three (3) groups as follows:

Group I includes claim 24;
Group II includes claims 25 and 28;
Group III includes claim 26, 27 and 29-33.

Claim 24 is the sole member of Group I:

24. A method for making a moist wipe for delivering a cationic functional agent in an aqueous medium to an animate or an inanimate surface for a desired efficacy, which comprises forming a bonded non-woven web comprising cellulosic fibers and having an anionic surface charge not greater than 1.2 meq per kilogram, and adding about one to three times the dry weight of the web an aqueous imbuement carrying a cationic functional agent at a concentration of about 6 milli-equivalents per liter or less and being partially absorbed by the web, whereby the amount of said agent remaining in the free imbuement is deliverable to the surface in sufficient quantity for the desired efficacy.

Claim 25 is representative of Group II:

25. The method according to claim 24 wherein said cationic functional agent is a monomeric cationic functional agent.

Claims 26 and 27 are is representative of Group III:

26. The method according to claim 24 or claim 25 further including applying to at least one surface of said web a polymeric binder containing a non-ionic surfactant.

27. The method according to claim 24 or claim 25 further including applying to at least one surface of said web a polymeric binder containing a cationic surfactant.

As related in paragraphs [0013] and [0014], the claimed invention relates to a method of making a cellulosic moist wipe which is effective for delivering a cationic functional agent to an animate or inanimate surface while reconciling three competing

strictures: (i) the moist wipe must be capable of effectively delivering an effective amount of the cationic functional agent to either an inanimate or animate substrate; (ii) the amount of the imbuement (the deliverable liquid in which the cationic functional agent is carried) must be small enough that the imbuement is largely retained by the moist wipe without excessive dripping; and (iii) the gross amount of the cationic functional agent included must be within regulatory limits. Applicants have been able to achieve this by controlling the anionic charge of the substrate. As the cellulose in the non-woven, typically air laid but possibly also carded, web inherently has an anionic charge, it can be appreciated that the cationic agent in the imbuement could undesirably interact with the cellulose reducing its net effectiveness. Accordingly, it might seem that drastic measures would be required to ensure that an effective amount of the cationic agent could be delivered. However, applicants have surprisingly found that in many cases, by merely changing the surfactant included in the latex used to consolidate an air laid or carded web, it is possible to bring the net surface charge of the cellulosic web down to a level making it possible to deliver an effective dose of benzalkonium chloride in an amount of imbuement which can be substantially retained by the web while still complying with regulations limiting the amount of benzalkonium chloride incorporated in the product.

As specified in claim 24, these competing strictures are reconciled by:

- Forming a bonded non-woven web comprising cellulosic fibers ...having an anionic surface charge not greater than 1.2 meq per kg;
- ...adding about one to three times the dry weight of the web an aqueous imbuement carrying cationic functional agent at a concentration of about 6 milli-equivalents per liter or less.

Claim 25 in Group II specifies that the preferred cationic functional agents are monomeric cationic functional agents.

Claims 26 and 27 in Group III specify that the charge on the web is at least in part obtained by ensuring that the surfactant used in latex to consolidate the web does not exacerbate the issues inherently caused by the charge on cellulosic fibers. Claim 26 specifies that a non-ionic surfactant is contained in a polymeric binder applied to the

surface of the web. Claim 27 specifies that a cationic surfactant is contained in a polymeric binder applied to the surface of the web.

Data demonstrating the surprisingly increased effectiveness of the moist wipes made by the method of the present invention are set forth in Table VII on page 32 as discussed in paragraph [0058] on page 31, lines 7-11. Table VIII sets forth data illustrating that the imbuement delivered by the moist wipes made by the method of the present invention retains a high degree of potency and, as discussed in paragraph [0061], page 33 to page 34, line 7, that effective antimicrobial activity can be attained with use of 6 meq/liter of benzalkonium chloride or less with an amount of imbuement equivalent to three times the weight of the web.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 24 - 30 stand rejected under 35 USC 103(a) as being unpatentable over Pregozen (USP 5,141,803) in view of Noda et al. (USP 4,785,030).

Claims 31 and 32 stand rejected under 35 USC 103(a) as being unpatentable over Pregozen (USP 5,141,803) in view of Noda et al. (USP 4,785,030), further in view of Rabasco et al. (US 2002/0099113).

Claims 31 and 33 stand rejected under 35 USC 103(a) as being unpatentable over Pregozen (USP 5,141,803) in view of Noda et al. (USP 4,785,030), further in view of Mochizuki et al. (USP 4,675,347).

The following issues are presented in this appeal:

1. Whether teachings of the primary reference indicating that the proposed combination would be "unmarketable" may be properly ignored in an obviousness rejection based on a combination of references.

2. Whether, in making an obviousness rejection, the Examiner entitled to rely on the unsubstantiated assertion that: "clearly an anionic surface charge of the web

containing cellulosic fibers after binding to them a cationic latex would not be greater than 1.2 meq/kilogram" in the absence of both (i) any prior art teaching concerning the effects of a cationic latex on surface charge of an untreated cellulosic web and (ii) any prior art teaching concerning the amount of cationic latex required to consolidate an air laid web and the net effect of consolidation of such a web using an unspecified cationic latex.

3. Whether or not the references, prima facie, teach the combination of Claim Group I.

4. Whether or not the references, prima facie, teach the combination of Claim Group II.

5. Whether or not the references, prima facie, teach the combination of Claim Group III.

VII. ARGUMENT

The primary reference, Pregozen (USP 5,141,803) does not deal with a moist-wipe for delivering a cationic functional agent at all but rather limits the description of deliverables to:

- skin moisturizers/humectants such as propylene glycol, and sorbitol;
- skin softeners/emollients such as ethoxylated lanolin, and ethoxylated glucose, silicone oil, mineral oil and fatty acid esters;
- botanical extracts such as the witch hazel extract, aloe vera gel, and chamomile extract; and
- perfumes and fragrances.

Pregozen also teaches that "surfactant and cleansers optionally may also be included in the aqueous compositions of the invention. The surfactant may be an amphoteric, such as cocoamphodiacetate which is commercially available from several sources or a nonionic, such as a polyethylene glycol ether of glycerol cocoate, polyoxyethylene polyoxypropylene block polymers, or a polymer of dimethylsiloxane with

polyoxyethylene and polyoxypropylene side chains, all commercially available." Note that of the extensive list of additives suggested by Pregozen, ***none are cationic***.

Pregozen does suggest the use of cationic biocides as a preservative for the web rather than as any functional additive to be delivered. In particular, Pregozen discloses non-woven wet wipes impregnated with an aqueous non-alcoholic composition in which the ***preservatives system*** comprises potassium sorbate, citric acid, disodium ethylene diamine tetra acetate, and a cationic agent selected from polyhexamethylene biguanide hydrochloride and poly-[oxyethylene(dimethyliminio) ethylene(dimethyliminio) ethylene dichloride] in amounts which (if we take the highest weight percentage mentioned by Pregozen in his broadest teaching of his invention along with the lowest molecular weight) work out to be up to about 20 meq/liter[1] (see col. 3, lines 61 & col. 4, line 12; MW of 1000, weight percent 0.24). In a comparative example (Example 2), discloses the use of benzalkonium chloride in an amount of 0.140% by weight which is roughly equivalent to 4 meq/liter but teaches that the wipe is unmarketable. Pregozen fails to mention the surfactant included in the latex used to consolidate his non-woven web and fails to mention the surface charge of the non-woven web. Nothing in Pregozen suggests that the moist wipes are suitable for delivering an effective amount of cationic functional agent – only that the cationic functional agent is sufficient to preserve the web. Pregozen further teaches away from the preferred embodiments represented by claims 25 and following as, in Example 2, col. 7, lines 11-45, he tests, inter alia, several monomeric cationic biocides and reports that "in each case the moistened wipes obtained had an unacceptable slippery feel that rendered them unsuitable for marketing."

Accordingly, the primary reference does not deal with delivery of a cationic functional agent, does not disclose the critical surface charge of the substrate, does not disclose the surfactant used in the latex that consolidates the substrate and teaches away from the preferred cationic functional agents of the present invention.

The Examiner attempts to remedy the deficiencies in Pregozen with Noda et al. (USP 4,785,030). However, applicants submit that in view of the clear teaching away from the use of monomeric cationic functional agents in Pregozen, any proposed

[1] 0.03-0.24 wt% Cosmocil is from 2.4 to 22 meq/liter and for WSCP is 2.3-18.5 meq/liter

combination that does not remedy the above noted deficiencies and constitutes a clearly impermissible hindsight reconstruction of the invention rather than a proper obviousness argument. However, even the proposed combination fails to meet the limitations of claim 24, much less claims 25 and following particularly in view of the clear teaching away in Pregozen from use of cationic monomeric biocides such as benzalkonium chloride and benzethonium chloride.

Noda et al. (USP 4,785,030) deals not with a latex used to consolidate air laid and carded webs, nor with the difficulties of delivering cationic functional agents from any cellulosic web, nor with the response of the surface charge of air laid and carded cellulosic webs to the nature of the surfactant incorporated in the latex used to consolidate the web, but rather with a wet strength resin capable of being incorporated in the wet end of conventional paper making operations to form a permanently hydrophilic surface. In essence, Noda et al. deals with the issue of how to incorporate polymers which are either nonionic or partially anionic in character with the anionic fibers in the furnish of the wet end of the paper machine by incorporating quaternary ammonium cationic groups into the latex (wet strength agent) as end caps which will enable the anionic or nonionic groups to bond to the anionic fiber. Accordingly, it does nothing to satisfy any of the deficiencies in Pregozen as a primary reference. Nothing in either Noda et al. or Pregozen suggests that air laid or carded webs can be made suitable substrates for moist wipes for delivery of cationic functional agents merely by changing the surfactant in the latex used to consolidate the web.

In short, to make the Examiner's proposed hindsight reconstruction of the present invention, the worker having ordinary skill in the art would need to:

- choose Pregozen as a starting point even though it suggests nothing about overcoming the problems associated with use of cellulosic webs for delivery of cationic functional agents;
- choose the cationic biocides used as a preservative in Pregozen as a functional agent;

- out of all the latexes known for consolidating air laid and carded webs, select not a latex known for this purpose but rather a wet strength resin disclosed in Noda et al., and
- then choose one of the embodiments in Noda et al. not employing a polymer with anionic groups.

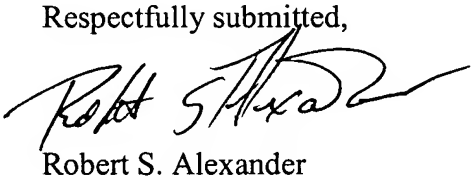
Even then, having made all these fortuitous choices, the worker would still be lacking any assurance of success. But, even after making this leap, to get to the invention of Claims 25 and following (Groups II & III), the worker would have to ignore the clear teaching of Pregozen that the cationic monomeric biocides impart a slippery feel to the moist wipe which makes it unmarketable.

Claims 31 - 33 have been rejected over three and four-way combinations of still other tangentially related art; however, applicants concede that if the rejections of the claims of Groups II and III can be sustained over the combination of Pregozen and Noda et al., there is no point in contesting the rejection of claims 31-33.

CONCLUSION

For the above reasons, all outstanding rejections should be canceled and all claims should be allowed.

Respectfully submitted,



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February 15, 2006

VIII. CLAIMS APPENDIX

24. A method for making a moist wipe for delivering a cationic functional agent in an aqueous medium to an animate or inanimate surface for a desired efficacy, which comprises forming a bonded non-woven web comprising cellulosic fibers and having an anionic surface charge not greater than 1.2 meq per kilogram, and adding about one to three times the dry weight of the web an aqueous imbuement carrying a cationic functional agent at a concentration of about 6 milli-equivalents per liter or less and being partially adsorbed by the web, whereby the amount of said agent remaining in the free imbuement is deliverable to the surface in sufficient quantity for the desired efficacy.

25. The method according to claim 24 wherein said cationic functional agent is a monomeric cationic functional agent.

26. The method according to claim 24 or claim 25 further including applying to at least one surface of said web a polymeric binder containing a non-ionic surfactant.

27. The method according to claim 24 or claim 25 further including applying to at least one surface of said web a polymeric binder containing a cationic surfactant.

28. The method according to any one of claims 24 or 25 wherein said functional agent is an antimicrobial agent.

29. The method according to claim 26 wherein said functional agent is an antimicrobial agent.

30. The method according to claim 27 wherein said functional agent is an antimicrobial agent.

31. The method according to claim 29 wherein said functional agent is an antimicrobial agent is selected from the group consisting of benzalkonium chloride, benzethonium chloride, and mixtures thereof.

32. The method according to claim 31 wherein said antimicrobial agent is benzalkonium chloride.

33. The method according to claim 31 wherein said antimicrobial agent is benzethonium chloride.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.